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NAVAL WAR COLLEGE
CENTER FOR NAVAL WARFARE STUDIES

GLOBAL 93
DETERRENCE THEORY FOR THE
COMING DECADE



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BY
DR. ROGER BARNETT
VICE PRESIDENT
NATIONAL INSTITUTE FOR
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O. E. HAY
Director
Advanced Concepts Department
Center for Naval Warfare Studies

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DETERRENCE THEORY FOR THE COMING DECADE

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DETERRENCE THEORY FOR THE COMING DECADE

Introduction

For states with defensive national security goals, deterrence of conflict is almost always preferable to fighting. Like many truisms, this one extends back at least as far as Sun Tzu, who thought about such issues around 500 BC. The concept is straightforward: To deter is to persuade an actual or potential adversary that he is better off by not taking a particular action. Deterrence can work through the presumed enemy believing either that his exertions would be likely to fail, or that success would be attained at too high a price. The concept is familiar. Yet, because deterrence is psychological -- it works in the mind of the deteree¹ -- both mystery and confusion surround it.

Applied to the realm of nuclear strategy, deterrence bears a heavy burden: it plays a vital part in preventing nuclear war. As one observer put it, "Never before has so much been staked on such a theory and the ability of practitioners to implement it."² This statement is noteworthy for four reasons. First, the situation is unprecedented. Second, the stakes are enormous. Third, it is clearly identified as theory. And fourth, men are responsible to make the theory work.

Early in the nuclear era it did not take observers long to come to the conclusion that nuclear weapons had altered key assumptions about strategy. In an oft-quoted early pronouncement, Bernard Brodie set the terms of the debate when he wrote: "Thus far, the chief purpose of our military establishment has been to win wars. From now on its chief purpose must be to avert them."³ Brodie, Albert Wohlstetter, McGeorge Bundy, Thomas Schelling, Herman Kahn--and many others in the gamut of civilian strategists all sought to analyze deterrence and to offer suggestions on its workings and how it might be strengthened. The goal was what Brodie had asserted: to avoid nuclear war. Eventually, the catechism about nuclear war was codified at the 1985 summit between the heads of state of the Soviet Union and the United States. Their joint statement contained the assertion that "A nuclear war cannot be won and must never be fought."⁴

If there could be no victors in a nuclear war, then victory could not be the desired, sought-after, or planned-for outcome of war. Accordingly, defense policy contortions sought instead to ensure that the United States would be "no worse off than its adversary" at the end of a conflict, that it would not take longer than its enemies to recover from a nuclear war, that the Soviet Union might not gain "the ability to cause considerably greater urban/industrial destruction than the United States would in a nuclear war," that the United States would "prevail," or that conflict would end on "favorable terms."

The major efforts expended over the years theorizing about nuclear deterrence resulted in the spilling of oceans of ink, but in fact accomplished little in the way of understanding how deterrence works. In part this was because of the approach begun in the mid-1960s that sized strategic nuclear forces to satisfy assured destruction criteria; that is, the Department of Defense developed models that could predict damage to the Soviet Union by a U.S. retaliatory strike.

From these calculations they decided arbitrarily what prospective level of damage in retaliation would deter the Soviet Union from striking first. From its original formulation in 1965 of a requirement to destroy 1/4 to 1/3 of the Soviet population plus 2/3 of Soviet industry,⁵ by 1971 the assured destruction criteria had eroded -- because of the growth in Soviet counterforce capability -- to 1/5 to 1/4 population plus 1/2 industry.⁶ Noteworthy in all this was that the process made no use of Soviet expectations -- even to factor in what intelligence experts might suggest the Soviets would consider unacceptable damage.

Completely unrecognized in the process was evidence that such fractions of expected population and industry loss might not be beyond Soviet levels of tolerance. Although deterrence was said to be assured because of the maintenance of a certain quantified retaliatory capability, the deterrer had made no effort to examine the mind of the deteree -- or the historical record. In fact, some direct evidence can be brought to bear, for by the Treaty of Brest Litovsk in 1918, Russia lost "34 per cent of her population, 32 per cent of her agricultural land, 54 per cent of her industry, and 89 per cent of her coal mines."⁷

The bulk of the work in the era of mutual assured destruction, however, was devoted to making nuclear deterrence "stable." If the question were asked: "What happens if deterrence fails?" The answer was, simply and dogmatically: "It can't fail." Persistent questioning was stymied by circular arguments that always returned to bottom dead center: "You don't understand. We have gone to great lengths to ensure that deterrence can't fail."

It was generally believed that merely considering the possibility that deterrence might fail would contribute to the probability of failure. Thinking about the use of nuclear weapons would make their use more likely.⁸ In these ways, discussions about deterrence were shunted to ground, and the ability to think deterrence problems through from leading to trailing edge was stifled. Remarkably, all five of the acknowledged nuclear powers have demonstrated a willingness to suffer battlefield casualties in their fighting forces rather than to use nuclear weapons, or even to threaten nuclear use against a non-nuclear foe.

The demise of the Warsaw Treaty Organization (WTO) and then of the Soviet Union, the subsequent reduction in interstate tensions and relaxation of strategic nuclear vigilance, the strategic arms and conventional weapons limitation agreements, the central marshalling of tactical nuclear weapons from their deployed locations, and widespread renunciation of chemical and biological weapons have, for the present, decreased concern about the likelihood of war that would include the use of weapons of mass destruction (WMD). In 1993 threats appear more diffuse and less centrally dangerous than only two years ago. The Defense Budget and the armed forces of the United States are in the process of being realigned sharply downward to reflect these facts and expectations.

Because of the high priority assigned to them, efforts to avoid nuclear war have helped ensure that theory and understanding of deterrence not involving nuclear weapons would be treated with significantly less emphasis. At the same time, there is increasing awareness that deterrence is still important, but it will be very different in the new environment. Unfortunately, theorizing

about deterrence was stunted by the heavy emphasis on nuclear deterrence, nuclear war avoidance, and analyses of crisis stability and management.

Desert Storm concluded with a clear military victory for the coalition forces. Yet, Saddam Hussein was undeterred in his intention to conquer Kuwait, in his attacking cities in Saudi Arabia and Israel with ballistic missiles, in his savaging of the environment, and in his flouting of international law. Deterrence had failed on a number of fronts massively and simultaneously. In each case the West was surprised. Might the cause have been because so little attention had been paid to the requirements of deterrence and the options available if deterrence failed?

The central shortcoming in analyzing deterrence is that successful deterrence tends to be just short of impossible to prove. Deterees are almost never willing to admit that they were deterred from taking a particular action. Failing an admission on the part of the deteree, there are few ways to determine if deterrence is actually at work, for it is the by-product of psychological interaction. Deterrence exists only in the mind of the deteree. As the resultant of psychological interaction and cognitive processes, a working deterrent situation today might turn into an invitation to aggression tomorrow. History has recorded instances where threats intended to deter a particular action resulted instead in prompting it.

Since deterrence involves intentions, the universe of relevant cases can never be identified, much less studied. Unfortunately for the students of deterrence, moreover, the more successful it is, the fewer behavioral clues it leaves behind.

Because deterrence is so important, because it is so complex, and because it merits more careful attention than it has received, this essay has the central objective of revealing what we know about deterrence, what we think we know about deterrence, and what we do not know about it. Then it addresses, in order, the questions: What generalizations can be made about regional deterrence in view of the state of deterrence theory? And, what happens if deterrence fails? Supplements to deterrence as policy options appear in the penultimate section of the essay, immediately before its conclusions. First, however, the current "state of the art" with respect to deterrence will be assessed. That is, the next two sections will expound on where deterrence theory stands at present: the "kinds" of deterrence, and the "elements" of deterrence.

Kinds of Deterrence

In all discussions of deterrence it is important to keep firmly in mind what is to be deterred, who is the deterrent and who is the deteree (or target of deterrence) and what is the deterrent mechanism. Especially confusing, and requiring care in discussions, is the fact that the deterrent mechanism is often a threat, while the deteree or his potential actions are frequently referred to as the threat.

Deterrence can be classified as "general" or "immediate," and "direct" or "extended." Some deterrent effect is generated existentially. This describes general deterrence. That a particular country merely maintains a comparatively large arsenal of weapons tends to influence the

intentions of its neighbors, its adversaries, and its potential adversaries. Likewise, deterrence that flows from strategic nuclear forces is, for the most part, general. It is therefore not incorrect to state that the overall balance of power or correlation of forces carries with it some structural, general deterrence. The British depended on general deterrence to keep Argentina from pressing its claim to the Falklands Islands, ignoring in the process the requirements of immediate deterrence.

Immediate deterrence is specific to time, place, issue, and adversary. Particular acts by distinctive forces in specific locations at discrete times are said to be prevented if immediate deterrence is effective. Concrete, not abstract, stakes and weapons are involved. For a deterrent mechanism to be effective in a particular scenario, it must have specificity and focus. By their lack of immediate deterrent actions with respect to the islands, the British led the Argentines to believe that they would not take military action to protect the Falklands.

Direct deterrence attempts to preclude hostile acts against oneself. A threat to wreak unacceptable damage on a state that attacks one's homeland or expeditionary forces abroad constitutes a direct deterrent threat. Deterrence can also be extended to allies or friends by a guarantor offering to protect them. A threat to retaliate against an aggressor for an attack on one's friend typifies extended deterrence. Extended deterrence is more difficult to effect than direct deterrence.

Elements of Contemporary Deterrence Theory

Deterrence theory can be dissected into four parts for discussion: capability, rationality, communications, and credibility. Deterrence theory should be contrasted to deterrent strategy. The former is grounded in assumptions and logic; the latter is concerned with the operational application of deterrence.

Each of the four elements of the theory depends upon facts and perceptions. The object of deterrence is the mind of the deteree; therefore, difficulties arise with regard to the body of facts to which the deteree has access -- Does it conform to reality, or is it incomplete or inaccurate? -- and with the way he perceives the information he has -- Does he assess it the same way as the deterrer?

First, there is the matter of capability. Without the deterrer's wherewithal to carry out the contingent action, a deterrent threat could appear meaningless. To the extent that the deteree perceives the capability to execute the deterrent threat as large, of high quality, in the active order of battle, highly trained, survivable, and usable, deterrence should be strengthened. This is an area in which states attempt to deceive one another, so it must be remembered that an opponent's inventory of facts and perceptions might be doubly unreliable. One part of the unreliability stems from the ordinary problems with facts and perceptions noted in the preceding paragraph; the other, from deceptive practices of the adversary.

Deterrence theory maintains also that the deteree in a deterrence relationship must act "rationally." This suggests that the deteree must have a hierarchy of values he will seek to satisfy by pursuing behavior that he believes will best support the attainment of his goals. This hierarchy governs his choices when he is presented with alternative courses of action. Faced with decisions, he acts rationally by choosing consistently among them in accordance with his priorities.

The rational actor is faithful to his own system of values and logical processes, not to those of a prospective deterrer. Opponents can be rational on their own terms, but have radically different values and perspectives. Often domestic political factors can significantly affect decisionmaking in foreign policy, causing leaders to take decisions that appear incomprehensible to outsiders. What seems to be arbitrary, bizarre, or even repulsive behavior on the part of the deteree can still be wholly rational.⁹ Preferences by one party might seem senseless or inconceivable to the other, but that does not make them irrational.

Appreciating the difference in value systems is fundamental to understanding deterrence mechanisms. The complications, however, are many and they run deep. A highly respected expert on international security wrote recently in this regard:

Western concepts differ fundamentally from those prevalent in other civilizations. Western ideas of individualism, liberalism, constitutionalism, human rights, equality, liberty, the rule of law, democracy, free markets, the separation of church and state, often have little resonance in Islamic, Confucian, Japanese, Hindu, Buddhist, or Orthodox cultures....Indeed, the author of a review of 100 comparative studies of values in different societies concluded that 'the values that are most important in the West are least important worldwide.'¹⁰

A prospective deteree is said to be irrational if he does not pursue behavior options in support of his hierarchy of values in a logical way. That is, given a choice among alternative courses of action that would support higher or lower values, he is branded "irrational" if he does not choose behavior corresponding to his higher priority value.¹¹ If the choice is not made by means of generally accepted logic -- for example, if the deteree used an Ouija board to select among alternatives -- that would also be labelled irrational.

Closely associated with the question of rationality, and adding yet another complication, is the question of risk taking. The deteree might find all the elements in place that would otherwise deter his actions, but decide on balance to risk it. Concerns that the future will present even bleaker opportunities than the present -- or that the value he is pursuing is absolute and worth any risk -- would encourage the taking of extreme chances. Or, it might be that a deteree is simply more willing to accept high risks to fulfill his goals. A well-constructed deterrent threat might attempt to take these factors into account, but could never completely eliminate them.

Different interpretations of what constitutes rational behavior can result in miscalculations and error. Likewise, incorrect or faulty information or divergent interpretation of a given body

of information can lead to making what would appear to be irrational choices, but would actually be mistakes.

It would be rare if a deterrer and a deteree knew with even a small degree of precision and confidence what the value structure of the other happened to be at any point in time. It would be rarer still if either understood the determination of the other to proceed with his plans within his unique hierarchy of values, the level of risk the other was prepared to assume, or the intensity with which his opponent embraced each of the values within his system.

The issue of rationality, probably more than any of the others in deterrence theory emphasizes how complex and shapeless the subject tends to be. Historical studies of deterrence theory suggest that political leaders frequently miscalculate, or fail to understand the value system of their adversary. Even if they attempt to sort out the opponent's options, they often do not fully understand the importance of communications, nor do they attempt to utilize communications to the fullest benefit.¹²

Thus, communication of the deterrent arrangement is an important element of deterrence theory. An unarticulated warning is irrelevant. A message sent and not received is worthless. Communication involves not only clarity and reliability of transmission, but also interpretation of the message in the way that was intended. None of these can be ensured.

A recent example of communicating a deterrent threat came from General Ratko Mladic, the Bosnian Serb army commander, as he warned the West not to intervene in Bosnia Herzegovina. "If they bomb me, I'll bomb London," he said. "There are Serbs in London; there are Serbs in Washington." and any Western ground troops that intervened would "leave their bones" in Bosnia.¹³ Here, General Mladic was making explicit that he had the capability to carry out his threat, and he was using communications and powerful imagery to help ensure that the West understood his message.

Some deterrence theorists argue that capability is all that truly matters for deterrence. Usable capability, of which a rational opponent is made aware through communication, will deter by its existence. Wars are prevented in this view by the expectation on the part of the prospective aggressor that his aggression may not be profitable. Those of this school, who emphasize capability alone, make no clear distinction between general and immediate deterrence. Curiously, this argument is used in some cases to rationalize small, not large, armed forces. Especially in the case of nuclear weapons, this existentialist approach holds that even a very small (finite) number of weapons can produce such terrible devastation that deterrence is reliably ensured.¹⁴ Proponents of this line of reasoning often have difficulty explaining why deterrence fails, and they are unable to offer much that is persuasive about how deterrence might be extended to allies, but this approach nevertheless has provided the dominant theme of U.S. deterrence policy for thirty years.

The other branch of deterrence theory contends that deterrence depends upon credibility as well as capability. Credibility first and foremost hinges on the expectation on the part of the

deteree that a deterrent threat will be carried out. The certainty, or perceived reliability, of retaliation is the bedrock of deterrence in this view. The deteree must believe the deterrer's threat. For example, potential aggressors would probably not find credible a U.S. threat to respond to aggression in the Third World with a nuclear ballistic missile attack.¹⁵

Those who believe credibility is a major component of deterrence maintain that deterrent strategy and tactics -- the operationalization as opposed to the theory of deterrence -- is important. They argue that a deterrent threat could have a range of characteristics. Some might improve, while others might reduce its credibility. For example, a threat to respond in a proportionate way to an attack might carry the highest credibility in a given instance. In another situation the threat to respond disproportionately might be more believable. In the former, the target of deterrence might say to himself, "This is a credible threat because it would use only the optimum amount of force to do the job;" in the latter, "This is a credible threat because it includes an element of revenge and punishment." Yet, a proportionate threat might alternatively be evaluated as weak, and a disproportionate threat might be viewed as unnecessarily escalatory or so threatening that it must be pre-empted.

Similar discussion could arise when considering the deterrent effect of tightly controlled responses as opposed to ones that are loosely controlled. Nevertheless, a prospective aggressor might believe that a deterrent threat was both proportionate and controlled, or disproportionate and uncontrolled, or any combination of the two and still judge it not to be credible. Any informed judgment about which particular technique would be preferred to underwrite credibility in a given situation would depend pivotally on the scenario, but even with a very richly detailed situation, those judgments tend to be based on poor evidence and loaded with guesswork -- by necessity, not by choice.

The capability theorist argues that it is capability that ultimately provides the deterrent, not credibility. The credibility school, on the other hand, maintains that threats judged incredible by an opponent cannot deter and, in fact, might invite a challenge. The former discounts deterrent strategy and tactics; for the latter, they are crucial.

Briefly, and in summary form, deterrence theory has been described. Having noted how the postulates of theory have been drawn, the analysis turns now to look empirically at what we know, what we think we know, and what we don't know about deterrence.

What We Know about Deterrence

This section begins with the admonition that even the "experts" on this subject know less than they think they do. Shockingly little knowledge about deterrence guides national policies. "Knowing" means that evidence supports belief, and evidence is scarce. Because of the requirements for knowing, and the paucity of direct information, the propositions in this section tend to be observations rather than judgments confirmed by analysis.

K-1: Deterrence cannot be observed directly. We can witness only deterrent effect.

One never knows for sure if deterrence is working. If the target of a deterrent threat is refraining from taking a proscribed action, that is all that can confidently be said about it. The effect appears to be the desired one, but it is very difficult to determine whether the effect is because of or in spite of the deterrent threat. It might instead turn out that the adversary had no interest or intention of challenging in a way the threat was levied to deter.

K-2: Deterrence Works Only Because the Deteree Chooses to be Deterred.

The choice is his. Additional capability might add to deterrence, and it might not. The same is true of measures that seek to bolster the credibility of deterrence. Contrary to the implications of some debates over this or that weapon system, the United States cannot buy deterrence "by the yard" via acquisition of a favored weapon or following through on other acts to improve credibility. Arguing that the United States would be deterred in similar circumstances describes the lazy mind's approach to deterrence. It tells one something about U.S. decision-makers, but nothing about the object of the deterrent threat.

K-3: Deterrence Requires the Perception of Risks and Threats of Actions Based on Imperfect Knowledge and Information.

To a greater or lesser degree the adversary's objectives, intentions, and forces are all unknown. Also essentially unknown are the adversary's estimate of the situation, his preference system, his evaluation of the deterrer's capability, the seriousness with which he might take a deterrent threat, one's ability to communicate reliably with him, and how prone he is to take risks.

K-4: Deterrence is Not a Solution to a Problem, But a Means of Managing a Problem.

The means for managing a problem must not be mistaken for a solution to the problem. The "problem" between the United States and the Soviet Union was systemic. The two political systems were incompatible. Reductions in the perceived threats each felt from the other was possible only with systemic change, which took place in the former Soviet Union in 1990-1991. Deterrence did not solve the problem, but it might have kept the West in the contest long enough for other means to work.

Many deterrent relationships do not involve the clash of political systems. The issues might involve territory, access to natural resources, immigration, or a variety of other conflict-sparking problems. Deterrence can be helpful in keeping flammable situations below the kindling point, but it does not often offer a solution.

K-5: The Perceived Need for Deterrent Effect Fluctuates Between Near Zero and Heroic.

The requirement for deterrent effect has a tendency to fluctuate between the pole of near irrelevance and the pole of maximum need. As with the case of strategic air and sea lift, for example, the United States finds that it needs either very little or the maximum the defense community can muster in a hurry. The difference, of course, is that the United States knows how to accumulate more strategic lift; bringing greater deterrent effect to bear is not much more than a crap shoot, but one that prudent policy-makers cannot ignore.

K-6: Deterrence Can Be Inapplicable or Irrelevant to the Threat.

Today, as in the past, there can be cases of strategic interaction where deterrence does not apply. The policy-maker for a state or sub-state group could make his decisions totally ignorant of or indifferent to the capabilities of a prospective deterrer. Given his situation, the prospective deteree might be unaware of his adversary's interests or capabilities or he might conclude that despite his adversary's significant military power, it would not be used in the situation at hand.

Perhaps a classic, but extraordinary, example of this can be documented from the archives of the former East German military. NATO strategy from the late 1960's was one of graduated escalation. NATO had based its deterrent on the threat to escalate and, if deterrence failed initially, to escalate gradually in an effort to restore deterrence. In the event of a conventional attack, the possibility of a nuclear demonstration response was declared in order to convey steadfastness and a willingness to use nuclear weapons. Further escalation was held out as possible, with the potential for escalation to central strategic systems always lurking in the background as the ultimate sanction. This constituted the deterrent threat posed to the WTO. It was designed to forestall an attack against NATO first of all, and also to deter the use of nuclear weapons in such an attack.

The Eastern forces, however -- according to archival material from East Germany -- found the NATO declared deterrent to be mismatched with WTO planning. The WTO plan contained options to attack first and to use nuclear weapons concurrently and massively in order to break through the NATO defenses. The documents "clearly show how, through political decisions at the highest levels, the armed forces of the former Eastern Bloc were organized and constantly trained in exercises to carry out the option of an offensive war."¹⁶ Nuclear weapons were integrated into the plans, and early use was planned. "The Warsaw Pact's first Front, consisting of the Soviet Union's Western Group of Forces and the NVA [East German National People's Army], would have had some 840 tactical nuclear weapons at its disposal..."¹⁷ Targeting called for first use in nuclear strikes against four target areas extending from Kiel in the north to the Austrian border in the south. Thus, NATO's declared deterrent was not at all attuned to the actual threat, as was learned only much later.

K-7: Deterrence is Controversial.

While agreement is virtually universal that deterrence is preferable to fighting, and few would claim that it should not be a central plank in U.S. security policy, the need for deterrence and the requirements of deterrence have incited open-ended arguments. The common ground among parties to the disagreements over deterrence is small, and has not changed much over time. The capability/ credibility debate referred to earlier indicated that some believe deterrence is the function solely of amassing certain weapons and projecting a willingness to use them. Others contend that deterrence draws upon a much richer fabric than orders of battle, no matter how large and capable.

K-8: Deterrence is Unreliable.

Deterrence fails.¹⁸ It fails, moreover, for the very reasons that theorists have argued it cannot fail. Weak states have often attacked larger, more capable adversaries.¹⁹ In some cases the weaker state was highly motivated and believed that its emotion would offset its material weakness. In others, it simply misperceived the situation; and in still others, the stronger state had a serious vulnerability that the weaker believed could be exploited.

Before World War II the belief was widespread that the terrible devastation that could be wrought by air bombardment would deter war. Prime Minister Harold MacMillan was explicit: "We thought of air warfare in 1938 rather as people think of nuclear warfare today."²⁰ In fact, the parallel was rich in detail, as J.M. Spaight has recorded:

The very magnitude of the disaster that is possible may prove to be a restraining influence. Because the riposte is certain, because it cannot be parried, a belligerent will think twice and again before he initiates a mode of warfare the final outcome of which is incalculable. The deterrent influence may, indeed, be greater than that. It may tend to prevent not only raids on cities but resort to war in any shape or form....

At present air attack is regarded as a menace, a withheld thunderbolt, an impending calamity. All nations fear it. For that very reason it should be a deterrent influence against war.²¹

Bureaucratic politics might be to blame for deterrence failures, or it might have been that there was simply insufficient time for decision-makers to make a careful, deliberate choice of actions. On occasion, political entities have even threatened to commit suicide rather than submit to an aggressor, and a few have even carried out their threat to do so once their deterrent threat went unheeded. Saddam Hussein attacked Israeli cities with ballistic missiles when he had every reason to expect that the probability of retaliation was near or equal to 1.0, and that the retaliation might well be in nuclear form.

Pointing out that nuclear weapons have not been used -- so nuclear deterrence, at least, has worked -- does not invalidate the point. It is known only that nuclear weapons have not been used since 1945; little is known about the reliability of deterrence against their use, because it is impossible to tell whether others have been persuaded not to use them because of a deterrent threat. The United States on four known occasions (against the Soviet Union, China, Korea, and Vietnam) considered using nuclear weapons and decided not to do so. In each case, the United States refrained from using the weapons on its own volition, not because of a general or an immediate deterrent threat of an adversary. It was self-deterred.

Owing to the myriad of variables, and the key consideration that deterrence lies in the mind of the deteree, it is difficult today to have high confidence in deterrence. This is unlikely to change in the future, for the issue goes to the very heart of the political process: the decisions of fallible decision-makers, occasionally laboring under great stress, driven by many forces -- some of which are entirely out of their control.

What We Think We Know About Deterrence

In this category lie elements of the "common wisdom" about deterrence. These assertions represent a step down in the strengths of belief systems characterized by the section above. That is, people often believe these propositions without any evidence of their truth, and therein lies the problem. Each of these beliefs finds itself rooted only in theory. Some claim a measure of academic respectability because they have ties with structured theory, such as game theory. Relationships of any of these beliefs to the real world are questionable at best. Unarguably, some experts and some policy-makers rely on these beliefs as dogma. Just as unarguably, however, none can be demonstrated empirically.

T-1: Deterrence is the Product of Capability times Credibility.

Based on the assumption that a deterrent threat has been reliably communicated, received, and interpreted, this axiom enjoys support in logic. It describes what might be characterized as the standard military approach to deterrence, and typifies the credibility school. If a threat is underwritten by large, capable military forces, and there are persuasive reasons to believe the threat will be carried out, then -- so it is argued -- deterrence should succeed. By the same reasoning, if either capability or credibility fall to very low levels, deterrence will be commensurately less effective.

This oversimplified model is insufficient, however, because it assumes away many of the vital political and psychological conditions that dominate the decision-making process in a deterrent relationship. The kinds of tacit assumptions that are made include:

- Leaders who are capable of relatively unbiased assessments of information and realistic linkage of actions to consequences,
- Political systems that permit the implementation of rational decisions as policy,

- Leaders who are well-informed, and who comprehend the intentions, interests, commitments and values of their opponents,
- Leaders who focus on external factors as the final determinant of decisions, and
- Leaders who understand their military capabilities and the general consequences of their decisions.

If one or several of these conditions is absent, there is no basis for assuming that the necessary calculations could be conducted, would determine policy, or that deterrence would be effective.²²

Indeed, the United States has not acted consistently in accordance with this apparent belief. The "How Much Is Enough" annual Defense Budget debates in the United States do not find their underpinnings in ensuring the credibility of deterrent threats, but in capabilities alone. At the strategic level, the notion of deterrence by the threat of mutual assured destruction is based on capabilities, not on the credibility of a response. President Nixon's plea from the early 1970's that a President should not be left with the binary choice of an all-out nuclear response or surrender has never been addressed adequately. At the operational level, deterrence in Europe against the WTO threat was also established on the basis of capabilities, not on the credibility of the U.S. threat to escalate.

T-2: Deterrence Is Most Effective When It Involves Threats to the Highest Values of the Deteree.

This harks back to the model that described rationality. If the deteree acts rationally, he will want to protect and preserve his highest values first. Deterrence should be more effective, therefore, if it targets the deteree's hierarchy of values.

According to one source: "Initiators of serious interstate disputes tend to disproportionately emerge as victors not because they are stronger than targets but because they are able to demonstrate that the stakes of the dispute are more important to them than to their opponents."²³ In deterrence terms, the vanquished failed to deter because it did not successfully hold at risk the initiator's highest values.

This premise contributed to the U.S. decision to target Soviet command and control with strategic nuclear weapons in an effort to hold at risk what the Soviet leadership considered most valuable. And it provided ammunition to those who argued that in the Persian Gulf War the Coalition would have been more effective if it had mounted a more direct threat to the person of Saddam Hussein, since other assumptions about what he prized most were proved false.

Obviously, the difficulty here is that an adversary's hierarchy of values cannot be known with a high degree of confidence. Some maintain that deterrence was stable between the United States and the Soviet Union because over a period of four decades, through a long, often stressful,

process, the two sides sorted out roughly what actions the other would tolerate. It would be an exaggeration to claim high confidence for a mutual understanding of value systems, however. If the U.S.-Soviet interaction provides the model for stable deterrence based on threatening the hierarchy of values of the other side, moreover, it does not provide much in the way of information or optimism about future actors in a variety of states that might need deterring, and about whose activities the United States does not have forty years to gain experience.

T-3: A Deterrent Threat Might Not Correspond to the Way a War Would be Fought.

It is logical that a deterrent threat might not translate directly into the action threatened if *deterrence were to fail*. Such a stipulation seems reasonable enough, for deterrent threats might, among other things, contain elements of bluff. Like the other assertions, however, it is unprovable, undependable, and untestable. Although one might believe it about deterrence, there is little on which to hang a policy decision.

T-4: Attempts To Strengthen Deterrence Might Be Self-defeating.

An increased capability to attack or a strengthened deterrent threat can under certain circumstances contribute to the failure of deterrence. One study cited three clear instances in which high risk military policies were adopted in response to the deterrent actions of others: Germany in 1914, the United States in 1950 (seeking to forestall Chinese intervention in the Korean War), and India in 1962 (in its border conflict with China).²⁴

The European NATO nations were never fully supportive of an offensive capability for the ground and air forces stationed far forward in Germany, even though the option to do more than absorb the first blow (and yield German territory) made sense for deterrence. They were concerned, *inter alia*, that such action might stimulate undesirable acts rather than deter them. This dilemma for decision-makers is both difficult and unresolvable.

T-5: Self-Deterrence Undermines Deterrent Effect.

Self-deterrence can be defined as refraining from taking some action for reasons wholly within one's own value system. In other words, some actions might be avoided, but not because of the concern that an adversary might retaliate in a way that would prove unacceptable. This idea would suggest that the United States would probably be self-deterred from attacking enemy soldiers bivouacked in a temple or a religious shrine. There are many other instances in which the United States -- or the West -- would be self-deterred. Furthermore, there is a possibility that others might recognize such potential self-restraint and seek to take advantage of it. The following mini-scenario presents the argument:

Is it inconceivable that a Third World leader -- a "rational" one by Western perception -- might reason as follows?

- a. I am building weapons of mass destruction clandestinely.

- b. The United States probably knows I am building them.
- c. If the United States does not conduct a preventive attack on my production facility, then I get a free ride once U.S. leaders believe my weapon is operational. At that point:
 - They will not be able to coerce me.
 - I can use my WMD to prevent them from interfering in what I do locally.
- d. If I were to attack the United States, the national command authorities (NCA) will not retaliate with WMD.
 - If they would not conduct a preventive attack, in which the United States would run lower risks and limit damage to itself in advance, why -- except for revenge -- would they conduct a retaliatory attack after I had demonstrated the will to attack the U.S. homeland, and risk even greater devastation from my response?

There is no direct evidence that Third World leaders have adopted such a line of thought, but at a time when proliferation of WMD seems all but certain, it should not be discarded out of hand.

T-6: Deterrence Is Complemented By Rewards and Inducements As Well As Threats.

What has been called the "security dilemma" gives rise to attempts to broaden the base of deterrence. The security dilemma states that between adversarial states an attempt on the part of one to become stronger fosters insecurity in the other, and can be the cause of arms races or even open conflict. The suggestion here is that a carrot as well as a stick will enhance the deterrent effect. This approach contends that inducements can increase the effectiveness of deterrent threats; and, depending upon the circumstances, reassurances (communicating a lack of aggressiveness or hostility to others) might be appropriate.

Clearly, U.S. policy-makers have been sensitive on this point, especially with regard to procurement of hard-target counterforce strategic weapons and with the acquisition by NATO of a strong offensive capability for ground warfare. The adoption of MIRV technology was resisted on these grounds in the United States, and a proposal to provide NATO with a strong conventional retaliation capability²⁵ was met with hostility both in the United States and in Europe.

In the abstract, it would appear that anything that can enrich deterrence would be welcome. Here, as elsewhere, the evidence is lacking; and, as with all deterrence theory, only deductive logic remains. Ultimately, deterrence relies on threats. Perhaps inducements and reassurances can help, but they might only enhance deterrence, not replace it.

T-7: Deterrence Contains Unrecognized or Unappreciated Difficulties.

This must be counted as another in the realm of accepted wisdom. Of course, if the difficulties are genuinely and totally unrecognized, nothing can be done about them. Nevertheless, some food for thought resides here, for among other things it serves as a reminder that when deterrence fails it will invariably be accompanied by shock and surprise.

Despite all the failures of deterrence throughout history, few were anticipated. The manner in which deterrence failed and the effects of its failing were largely unexpected. For example, Saddam Hussein's SCUD attacks on Israel would fall into this category. More tentative and contentious might be the notions that: large, powerful states with arsenals brimming with weapons of mass destruction are deterred from attacking small WMD states, but small states would be deterred less from attacking large ones; and, as a corollary, small arsenals of WMD are more usable than large ones. In the latter case this suggests that a state with five nuclear weapons is much more likely to use them than a state with five thousand weapons. A "capabilities" approach to deterrence would argue the contrary in this case.

What We Don't Know About Deterrence

This category contains items important to the subject, but about which there is insufficient information even to speculate with much -- if any -- confidence. The set is composed of acute situational or context-sensitive variables. Before the demise of the Soviet Union, some were "known" (K's) and some were "think we know" (T's). Now they are "don't knows" (D's).

D-1: The Identity of Those Who May Need Deterring

Western strategic culture in general, and American strategic culture in particular, have found it useful to have a well-defined enemy to energize security strategies. It invariably helped if the enemy was capable of arousing emotions -- of late, the North Koreans and the Chinese; the Viet Cong; Stalin, Khrushchev, and Brezhnev; Qadhafi; Noriega; Saddam Hussein; and the Ayatollah Khomeini; but before them the Nazis, the Japanese, etc. And it has helped if the adversary appeared to be worthy, for there would be no satisfaction hammering second- or third-rate foes. In the current environment, however, and foreseeably, precisely who needs deterring might not be crystal clear. The "who" applies broadly in the sense of "which states" will need to be deterred, and it applies more narrowly in the sense of "which decision-makers" within the state are the ones who need to be influenced. Non-state actors such as terrorists present even more complex problems for deterrence.

Since deterrence, as has been emphasized throughout, lies not in one's weapons or in one's actions but in the mind of the deteree, if the identity of the deteree is not known, deterrent efforts cannot be focused for optimum effect. Further aggravating this problem is that the best one can do is to assume who -- in the various senses -- needs deterring, for it will probably be impossible to know for certain.

D-2: The Value Structure of Those Who May Need Deterring

This, of course, is related closely to T-2. It would stand to reason that the values of the deteree cannot be known if his identity is not known, and that his hierarchy of values would be difficult to determine even if he were known. Adversaries are the ones who need deterring, but adversaries are also the ones who make their intentions and their values unfathomable to their expected enemies.

Somewhat perversely, even if the value structure of a prospective deteree were known, that might not reveal the threats necessary to deter him. In brief, neither the correct buttons to push for deterrence nor the buttons to avoid can be determined with confidence. Here, again, the solution lies in assumptions and guesswork.

Contrary to the interests of deterrence theory, this variable tends to become more opaque rather than more intelligible as interstate relations deteriorate -- as in time of serious crisis. The importance of this variable, and the agendas of various organizations that would like very much to know the information it contains and how to influence it notwithstanding, this remains durably terra incognita.

D-3: The Time Frame for Deterrence

Knowing who needs deterring and how to deter them differs from the notion of when they might need deterring. For deterrence to work, even in theory, knowing just when a deterrent warning will be needed would be exceptionally helpful. For all the indicators and warnings provided by the intelligence community, however, the track record is poor; as a consequence, this variable remains, and will remain, significantly less than a "T".

D-4: How to Deliver the Deterrent Message, and How to Characterize It

Here the issue is communications. The theory of deterrence alleges that communication of the deterrent threat is vital. Yet, it is difficult to know how to ensure that the message is received, and it is equally difficult to know what to say or how to say it. Communication, of course, includes all means and methods. With some threats and some deterees, "body language" will be more effective than sending a letter. For others, the reverse will be true. Sometimes a learning process can provide insights; at other times, one must fly entirely on instruments.

D-5: The Occasions and Issues for Deterrence

When the Evil Empire was in its heyday, this factor was reasonably close to the "K" column. The occasions and issues over which the sides might go to war had been studied manifold times and ways. Operational practices among the parties offered limited feedback on sensitivities and value structures. There was a degree of confidence in the West that on any occasion and on every issue one could conceive of, the Soviet Union was deterred from attacking NATO.

At present, the West is so unsure about the origins of aggression and the threats to national security that, in its frustration, it has identified "instability" as the threat. Even in the abstract, however, instability cannot be the threat. Instability describes a condition that may result in a threat to Western interests, it may present an opportunity, or it may result in neither. To those who continue to believe instability is the threat one might ask how instability might be deterred, since all agree that deterrence constitutes the preferred way to go.

D-6: How to Restore Deterrence

Since among the "knowns" is the fact that deterrence is unreliable and it fails, and since it nevertheless describes a situation that is desirable, it would be useful -- and might be imperative -- to know how to restore deterrence if it fails. This is among the most difficult of all the context-sensitive variables to come to grips with. It is a subject that because of its dynamism is attractive for war game play. But it, also, remains firmly among the "D's."

Prospectives on Regional Deterrence

The foregoing describes the state of deterrence theory as unsettled, to say the least. Yet, U.S. national strategy emphasizes deterrence with both an intercontinental and a regional emphasis. Deterrence of long-range WMD attack by the maintenance of a modern, fully capable, and reliable triad of strategic weapons remains the number one defense priority of the United States. Nuclear deterrence has been stable over the past thirty years, underwritten by ground- and sea-based long range ballistic missiles and heavy bombers. While arms control will reduce the strategic nuclear arsenal, and although chemical and biological weapons have been all but forsworn, the overall strategic balance appears satisfactory, and few responsible persons have expressed serious concern about it.

U.S. National Military Strategy has shifted in the past two years from a global, Soviet-oriented strategy to one that gives major attention to regional contingencies and threats. In particular, the 1993 version of the strategy called for shaping the future to enhance strategic depth "in ways that would help preclude hostile non-democratic powers from dominating regions critical to our interests."²⁶ Given what we know about deterrence, what we think we know, and what we don't know about it, what general considerations can be postulated that might be useful for regional deterrence in support of the national military strategy?

In the first place, it is likely that some general deterrent effect is generated by the fact that the United States maintains a large, capable military, deploys and exercises it widely, and has used it successfully in various regions of the world. Participation in regional alliances and the maintenance of bilateral security treaties contributes also. Potential aggressors should not be unaware of the past and potential U.S. commitment to defend its interests on a global basis.

It is not unreasonable to anticipate that military capability exerted over thousands of miles will have more general than immediate deterrent value. A B-1 in a hangar at an air base in the continental United States might have some general deterrent effect on a potential conflict in, say,

Poland, while a Marine Expeditionary Unit afloat in the Eastern Mediterranean should have immediate deterrent value in the Levant. Whether one or the other exerts greater deterrent effect depends on a potential transgressor's belief about whether or not that particular military instrument will be used, and if it will be effective in thwarting his attainment of his objectives.

It is widely believed that immediate deterrence of specific acts in discrete locations is bolstered by forward military presence -- which includes forces stationed overseas and afloat, periodic and rotational deployments, access and storage agreements, combined exercises, security and humanitarian assistance, port visits, and military-to-military contacts. After World War II, significant numbers of U.S. ground and air forces were stationed abroad for the first time. The heavy commitment to Europe in the form of on-the-ground presence was considered temporary in the early post-war years,²⁷ but as the Warsaw Pact threat matured and the bipolar nature of the Cold War became more evident, U.S. presence on the continent became more important both to the United States and to its European allies. U.S. forces in Europe were considered part of the containment of Soviet expansionism, and thus were tied tightly to the Cold War. U.S. forces stationed elsewhere in the world contributed to the image of U.S. determination to resist the spread of communism, and, in some cases were devoted to very specific tasks -- as in the defense of Korea, for example.

Various Presidential "Doctrines" -- those of Presidents Truman, Eisenhower, Nixon, and Carter -- sought to bolster deterrence by posing a deterrent threat to the Soviet Union or other potential aggressors. The latest official Presidential Doctrine, the Carter Doctrine, established an immediate deterrent threat to the Soviet Union with regard to the Persian Gulf area.²⁸ The Carter Doctrine's warning was reinforced by specific military capability: the Navy had been present in the Persian Gulf continuously since 1948; Diego Garcia, leased from Britain in 1966, was under active development, and the Rapid Deployment Joint Task Force (ultimately to become the U.S. Central Command) was quickly formed.

The message U.S. forces carry by their presence is that the United States has important interests in that particular geographic area, and it desires to be consulted on events bearing on those interests. Those who intend to act in ways to which the United States would take exception are encouraged to reconsider, just by the fact that U.S. forces are in the vicinity. It is logical that on-scene or nearby forces should have some deterrent effect in this regard. Some additional considerations temper what otherwise would be a strong endorsement for the contribution presence makes to deterrence, however.

Strategic distances in regional conflict are measured in hundreds rather than thousands of miles. American decision-makers, on the other hand, have been conditioned to think strategically in terms of long distances. The agents of this conditioning process have been the geographic separation of the United States from other states by the oceans, secure borders and non-hostile neighbors, and fighting five major wars in this century on the Eurasian land mass.

For almost everyone else in the world, paramount security interests are more intensely local. The primary adversaries of regional actors tend to be located either within their state borders or

directly adjacent to them. Serious conflicts with non-contiguous states are unusual, and do not usually form the core of their security concerns. The focus of most states of the world, therefore, is narrowed to their own domestic security problems or the activities of their immediate neighbors. With such a constrained field of concentration, they might not observe a naval deployment in their immediate region, or they might not consider that a deployment was relevant to their particular problem or actions. As a consequence, for the prospective deterrer two requirements arise: (1) communicating a deterrent message so that the prospective deteree does, in fact, take notice, and (2) relating to the deteree's value structure -- that is, finding a way to encourage him to appreciate the relevance of the deterrent action.

Merely trying to ensure that a deterrent threat or message is received and understood, much less relating it to the deteree's hierarchy of values, presents a daunting task. Today there are 186 separate, recognized states in the world, 178 of which are members of the United Nations.²⁹ Since immediate deterrence refers to the business of influencing the intentions of a particular deteree, to be most effective it should be tailored specifically for him. This means that assumptions will have to be made about items we "think we know" and the ones we "don't know" about deterrence -- in particular D-1 through D-4 -- and these assumptions might well make a difference depending on which of those 186 separate states or other actors, such as terrorist groups, one seeks to deter.

The necessity to tailor a deterrent threat, and to be circumspect about the way the message is delivered, can be seen by using the Iraqi attack on Kuwait as an example. The deterrent threats issued to Saddam Hussein in the spring and summer of 1990 with regard to Kuwait were at best ambiguous; it is probable, moreover, that a woman ambassador was not the best vehicle to convey U.S. seriousness on the issue. Of course, no one will ever know if a different deterrent warning would have altered Saddam Hussein's plans, but it is clear that the admonitions given turned out to be insufficient.

The "presence message," moreover, has become more difficult to send since the legitimization of the 12-mile width of the territorial sea. Most states of the world have claimed a 12-mile territorial sea; the United States proclaimed its acceptance of that limit in December 1988. When the limit was three miles, ships could make their presence very manifest to those on the shore by steaming close to the shoreline, conducting exercises, and flying aircraft. Now, however, even an aircraft carrier observing a twelve-mile territorial sea cannot be seen by an observer on the shore at sea level. One cannot now be certain that a ship's presence in a particular area has even been detected. Adversaries and potential adversaries may now have the option to choose whether to acknowledge the presence of the naval forces of another state. Of course, ships can enter territorial waters in innocent passage, but the requirements for innocent passage must be met.³⁰ "Presence" in the current circumstances, therefore, must be communicated in ways other than just "being there."

Some other general characteristics about regional warfare might bear on the quality of deterrent activities. For example, land warfare is the dominant mode for most nations of the world, even though the limited availability of improved roads places a strong limit on mechanized

offensive operations. Experience has shown also that most nations acquire weapons primarily to deal with regional, not out-of-region security matters. This refers back to the fact that their adversaries tend to be internal or geographically adjacent to them. Even so, about seventy countries in the world have anti-ship cruise missiles in their orders of battle, nearly fifty have sea mining capability and an equal number maintain supersonic fighter/attack aircraft, and there are roughly two hundred submarines in the world not operated by the United States, Russia, or NATO states.

Sea and air warfare require high technology, complex personnel training, and they are costly. Nevertheless, navies have been a growth industry. In 1959, only sixty-seven countries in the world had a navy. Now almost all coastal and island states maintain naval forces in their national order of battle, and over one hundred have organized forces for other than what are usually considered "coast guard" duties. For the most part, naval forces are poorly trained, and virtually none of them have any combat experience.

It has been demonstrated that pain thresholds and tolerance for casualties tends to be higher in the non-Western world than in more technologically advanced societies, and internal conflict has resulted in more casualties than international conflict.³¹ These will have a bearing on the quality of the deterrent threat that must be issued.

Because there are so many potential deterrent situations, and because all actions can be misinterpreted, the best approach to regional deterrence would be one that first lays out U.S. security objectives for each region and then seeks to determine just how deterrence can contribute to securing those objectives. Acknowledging the diversity and the capabilities of regional actors is one of the key inputs to thinking about deterring actions that the West would find intolerable. The number and the diversity of regional actors would counsel, in addition, that prioritization be given to the regions and to the threats within them, so that deterrence can be tailored to them, and plans worked through to deal with the events that take place if deterrence should fail.

What Happens if Deterrence Fails?

A world-class strategist, obviously piqued with the paralysis fostered by assured destruction advocates who maintained that there was no life after deterrence -- both figuratively and literally -- wrote in 1979: "It is the business of the strategist to think what to do if deterrence fails, and if Soviet strategists are doing their job and those in the West are not, it is not for us to complain about them."³² Sir Michael Howard, among others, was astounded at impoverishment of strategic thought by those who argued that merely to think about disagreeable events would increase the likelihood of their coming true.

In general terms, only a few actions can result from the failure of deterrence. It seems certain that surprise and shock will probably accompany the event. In fact, it would be counterintuitive if surprise and shock were absent, because the undeterred will probably ensure that they are integral with the occasion in order to heighten the effect. The choices available to the

unsuccessful deterrer are: to carry out the action stipulated in the failed deterrent threat, to take some other action, or to do nothing.

The course of action selected will be governed totally by the situation. The deterrer must now consider his next move, his opponent's countermove options, and his response to his opponent's potential countermoves -- quintessential strategic interaction. The deterrer must be sensitive to the impact on the continuing requirements for deterrence by his actions. By opting for less than what the now-failed deterrent threat would have required in retaliation, would he then be undermining deterrence of other, perhaps more vital, hostile acts? By reacting disproportionately, would he become the object of severe criticism, either domestically or internationally? Would he be inviting a disproportionate counter-response? By doing nothing would he be demonstrating that the deterrent threat was pure bluff, thereby declaring open season on other interests protected by deterrent threats? These questions must be considered, but they can be given substance only in the context of the particular situation.

Deterrence theory offers little in the way of advice or council if deterrence does not work. This, of course, is a powerful and enduring criticism of deterrence. It tends to lull the deterrer into believing that everything is all right, and then when it fails it does not even offer clues about antidotes.

Thus, one can summarize in the most succinct way what we know, what we think we know, what we do not know about deterrence, and what options attend its failure:

- Deterrence describes a state of mind of a deteree. If no untoward events take place, the deterrer cannot know if the deteree has, in fact, been deterred from doing what the deterrer does not want him to do, or if the deteree simply has no interest in taking such action and does not need deterring.
- States of mind are volatile. They can change suddenly -- for unanticipated and unfathomable reasons. One cannot be certain about how to influence prospective deterees to encourage them to follow a desirable path.
- If the "credibility" school is correct, immediate deterrent threats are probably stronger and more effective than general deterrent threats. Within the same lines of reasoning, direct deterrence is stronger and more effective than extended deterrence.
- The departure from the scene of the Soviet Union has rendered deterrence apparently both more problematical and less dangerous for the West. Deterrence is more problematical because the identity of the prospective deterees is not as well known, and the issues have yet to crystallize fully. The international security arena has become less dangerous for the present because of the fracturing of Soviet power, the dissolution of the WTO, and the appreciable reduction in hostility between East and West. For as yet undetermined reasons, the greatly feared war between the coalitions did not take place. Some have argued that from this the West should learn that the

existence of strong military capability alone was sufficient to deter; others hotly dispute that claim.

- Regional deterrence is complex, owing to the number of actors who might need to be deterred, the variety of their capabilities and intentions, the narrowness of their strategic vision, and the uncertain value of "presence." The impact of presence has been undermined by the 12-mile territorial sea. Not many states maintain capable navies, and not many hold them in high esteem. Deterrent threats aimed at regional actors will have to be communicated to them as clearly as possible.
- Deterrence is unreliable. Even though it is unreliable and known to be so, it has a lulling effect; if it is working, nothing cataclysmic is happening. Options for action if deterrence fails encounter the paradox of specificity: that is, a direct, credible, immediate, discrete deterrent threat targeted high in the adversary's value hierarchy stands the best chance of deterring; yet, if deterrence fails, the more precise the deterrent threat the fewer the response options. When deterrence fails, it will probably surprise the deterrer, for the undeterred will seek to take advantage of surprise effect.

Deterrence is uncertain and perhaps unsafe. Erratic and unpredictable though it might be, deterrence will remain the preference of responsible statesmen. Deterrence might be reinforced by an improved leadership understanding of its nuances and paying closer attention to its requirements. Even if that were to occur, however, it could not change the problematic nature of deterrence. Interest in what might be done to supplement deterrence should therefore increase at a time when the long standing superpower deterrent relationship has altered significantly.

Supplements to Deterrence

The bleak case for deterrence and the determination to retain it as priority one in U.S. security policy leads to a discussion of ways to supplement deterrence in order to make it more reliable and effective. Fortunately, the menu is not blank. Potential policy choices range from the most assertive -- preventive measures -- to the most benign -- appeasement.

Preventive Measures

Many actions that might be undertaken under this rubric would, and should, be included in deterrence. For example, forming and participating in security alliances can be viewed as preventive measures to deter conflict. While U.S. presence overseas has been declining, both in terms of stationed forces and ship deployments, forward presence should still be viewed as an element of deterrence. Nonproliferation policies to discourage the spread of particular weapons or technologies have a major role to play in this regard. Likewise, military actions short of the actual use of force -- forward and vigorous patrolling operations in many areas of the world and training exercises, for example -- contribute to the deterrent fabric. Limited uses of force designed to forestall hostile acts -- blockades, small raids, and some particular special forces operations come to mind -- might also be included. Accordingly, although the size of the effect might be

uneven and arguable, recognition should be given that reduced emphasis in these areas, or a reluctance to employ them, has a detrimental impact on general deterrence -- and, in some cases, perhaps, on immediate deterrence.

The threat of the preventive use of force can supplement deterrence by acknowledging the latter's weaknesses. Prevention in this sense stands in contrast to preemption. Prevention connotes taking action, the purpose of which would be to preclude an adversary from undesirable future activities. Precipitate, near-term acts are not the target of prevention, but of preemption. The distinction is based on the imminence of attack.³³ To forestall an impending attack, based on positive tactical warning, would be to take preemptive measures against it. To forestall the production of nuclear weapons by attacking reactors or production facilities would be to take preventive action. While a threatened application of preventive force can be used to deter, actual preventive attacks mean that the deterrer has lost confidence in the effectiveness of deterrence and feels compelled to act. The Japanese attack on Pearl Harbor, and the Israeli attack on the Iraqi Osirak reactor forty years later offer classic examples of the latter.

The historical record reveals that the United States considered at high governmental levels the undertaking of preventive action against the nascent nuclear weapon capability of both China and the Soviet Union. Of interest in this regard is that the Commanding Officer of the Air War College was fired by President Truman in 1950 for going public with the idea of preventive attacks against Soviet nuclear weapons stockpiles. "Give me the order to do it and I can break up Russia's five A-bomb nests in a week," General Orvil Anderson had said, "And when I went up to Christ -- I think I could explain to Him that I had saved civilization."³⁴ There is also evidence that the preventive use of force against Chinese nuclear development, and even collaboration on such prevention with the Soviet Union, was considered at high levels in the U.S. government.³⁵ Ultimately, preventive measures were taken neither in the case of the Soviet Union nor of China, and deterrence assumed by default the position of prominence for war prevention.

Preventive measures will necessarily remain at issue in an international security environment that will witness the further proliferation of weapons of mass destruction. The argument that it would be far better -- and more moral, proponents will contend -- to destroy WMD or the means to produce them before they are actually employed will ensure that prevention will not be ignored as an option. The threat of preventive attack will probably not generate strong deterrent effect. An actual preventive attack, however, would generate shock and apprehension among states approaching, or even considering WMD capabilities. This might be expected to have a strong antiproliferatory effect on those with active programs or plans. A successful attack might have even wider-ranging impact, since states threatened by the proliferants would also lose much of their incentive to acquire WMD.

Those who favor the preventive use of force might also be expected to point out that the West in general, and the United States in particular, suffer concurrently from nuclear phobia and nuclear amnesia. Nuclear war has not always been considered either unthinkable or unwinnable, and nuclear weapons have not always been viewed as unusable.³⁶ These notions have evolved

only in the past forty years or so. Other states might not share that opinion. In fact, if they did, they would have scant interest in acquiring WMD.

Preventive attacks, however, in addition to running afoul of international law, would be contrary to U.S. strategic culture. The United States was highly critical of the Israeli attack on Osirak, and voted in the United Nations Security Council to condemn Israel for it. That preventive attacks are considered unlawful would also render them unattractive as a live option - much as U.S. Executive Order 12333 prohibits even planning for the assassination of state leaders.³⁷

Opponents of the preventive use of force might be expected to contend that such attacks would be both illegal and immoral, that the evidence supporting an attack was insufficient, that the risks of failure were too great, that the timing was not right, that other measures had not been granted adequate opportunity to weigh upon the problem, and that the targeted system or capability was intended strictly for defensive purposes.

This controversy would not likely be aired in the open press, for obvious reasons. Even in closed session within the executive branch, however, the debate would no doubt be animated and heated. It would be fueled by an increasing ability to conduct preventive strikes with very accurate conventional weapons only, resulting in low levels of collateral damage and expected friendly losses, and by improved quality of intelligence assessments. The combination of these would enhance attack effectiveness and make success more likely.

Clearly, preventive options occupy a broad spectrum that range from benign and mostly uncontroversial -- exercises and forward presence -- to violent and contentious -- preventive attack. Many of them contribute to deterrence, but the most vigorous of them operate on the premise that deterrence might not work.

Active and Passive Defenses

Another option to supplement deterrence is to field active and passive defenses. Defensive measures are often viewed as a hedge against deterrence breaking down, but they can also enhance deterrent effect. Strategists have long recognized that deterrent threats can be reinforced by ensuring that the forces required to execute a retaliatory attack are stoutly protected. Security of deterrent forces constituted a major rationale for the development of the ballistic missile submarine, and for the many efforts to ensure the survivability of the land based-legs of the U.S. strategic triad.

For the United States, homeland defenses remove or attenuate the threat of direct coercion of decision-makers. Even modest efforts in active and passive defense complicate an attack planner's agenda disproportionately. For small, constrained attacks this rings even more true. By refusing a free ride to the weapons of potential adversaries all the way to their targets, defenses reduce an adversary's confidence in being able to attack effectively, and thereby supplement deterrence.

Defenses protect expeditionary forces, preserving for them the opportunity to achieve their objectives, and by doing so, they also boost the deterrent effect of those forces. If defenses can help protect decision centers in the homelands of allies, they can at the same time help facilitate the formation, integrity, and survival of coalitions.

Contrary to the assertions of critics, defenses need not be perfect in order to be effective. So long as they raise substantial questions in the mind of the prospective attacker that his efforts might not succeed, they can be useful. Once the weapons begin to fly, moreover, defenses contribute by limiting damage.

Selective Proliferation

The U.S. Government since the Second World War has been consistent in its opposition to the proliferation of nuclear weapons.³⁸ Its opposition to proliferation of other WMD extends back to the Hague Convention of 1899, through the Chemical Warfare Protocol of 1925 and the Biological Weapons Convention of 1972, to the joint U.S.-Soviet Agreement on Destruction and Non-production of Chemical Weapons and on Measures to Facilitate the Multilateral Convention on Banning Chemical Weapons of 1990.

With the lone exception of providing submarine-launched ballistic missiles to the British, the United States has also been consistent in its opposition to the proliferation of long-range delivery systems. Military sales and grant programs, in contrast, have disseminated other U.S. military equipment, new as well as used, on a global basis.

The U.S. stance on WMD proliferation was taken in a very different global security context than exists today. Very few states had either the capability or the inclination to develop WMD, and the bipolar structure of the world environment led the Eastern and Western coalition leaders, the Soviet Union and the United States, to oppose further proliferation. Today, according to testimony of the U.S. Director of Central Intelligence: "More than 25 countries, many of them hostile to the US and our allies, may have or may be developing nuclear, biological, and chemical weapons -- so-called weapons of mass destruction -- and the means to deliver them."³⁹ This fact, and:

- The general lack of confidence that nonproliferation regimes will ultimately succeed;
- A history of disseminating other conventional weapon systems to maintain or restore regional power balances;
- The difficulties and stresses involved with extending deterrence to allies; and
- Some inconsistency -- and perhaps embarrassment -- over the Israeli nuclear situation,⁴⁰

lead directly to the possibility of a reconsideration of proliferation policy.

Is it inconceivable that the United States might consider allowing Pakistan to continue without severe hindrance along its nuclear path rather than be placed in a most awkward position if India were to issue serious nuclear threats, or take some strong action against Pakistan? Might the same apply with regard to the Republic of Korea if it becomes clear that North Korea has a fully developed nuclear weapon? Perhaps none of the options is appealing, but might this be a less undesirable course than the preventive use of force against the DRK? Would Ukraine become an easy mark for Russian aggression if it renounced its nuclear arsenal?⁴¹ These questions alone fuel speculation that selective proliferation might become a live option in the not-too-distant future.

Appeasement

The much-maligned British and French appeasement of Germany prior to World War II turned the word "appeasement" into an international scourge. Yet, appeasement of Hitler -- especially by Britain -- was deliberate policy, the seeds of which had been sown before World War I and very heavily fertilized by that conflict. As the leading world power, Britain felt overextended and unable to meet the global challenges it faced. The extremely painful memories of World War I, amplified by a conviction that conciliatory policies would have averted war in 1914, skewed British estimates. Since steadfastness had brought on a terrible, bloody conflict earlier in the century, and because air warfare carried the promise of tremendous loss of life with little prospect for defense,⁴² perhaps, they reasoned, Hitler would be satisfied short of conducting world war to achieve his goals.

In fact, peace is always "winnable" if one is willing to pay the asking price. The decision about whether the price is too high will be made by the NCA. The current wisdom holds that Prime Minister Chamberlain and his French counterpart, Prime Minister Daladier, were wrong to attempt to appease Hitler, and made the conflict worse by their attempts. Nevertheless, that was then and this is now, and appeasement appears on a variety of policy agendas in a multiplicity of guises.

Most often one finds it in pronouncements about "war avoidance." Of course, all can agree that it is generally preferable to avoid war. Avoiding war as an objective and avoiding war as a policy are different matters, however, and too frequently confused with one another. If violence has not been rejected as a possible course of action, then war avoidance can be a policy goal of a state. The implication is that if the objective to avoid war in a given case is superseded by another, higher objective, then combat might eventuate. In the situation where war avoidance is policy, then an adversary can gain advantage, perhaps key advantage, merely by threatening war.

The notion of appeasement or war avoidance is closely allied with convictions about the use of force. An inability to countenance the use of WMD, anytime, any place, or in the face of any provocation must lead directly to appeasement or war avoidance. Conventional options will simply be trumped by those states that can convincingly demonstrate a willingness to use WMD. Statements from the defense pundits about the necessity to avoid war are frequently rooted in a fundamental -- acknowledged or not -- pacifism.

Conclusions

Five broad conclusions should be drawn from this analysis:

- C-1. The requirements for deterrence are indeterminate.
- C-2. Deterrence is unreliable.
- C-3. Observations and studies about deterrence must be approached with skepticism.
- C-4. There might be ways to make deterrence more effective.
- C-5. Surprise happens, so preparations to deal with it are necessary.

Before expounding briefly on each, however, it must be reiterated that the subject of deterrence is adrift in a sea of guesswork. No one can with high confidence predict under what conditions deterrence will work, or if and when it will collapse. Deterrence has undergone intense analytical scrutiny for years, but the lion's share of the emphasis has been devoted to preventing nuclear conflict. That research will be successful in uncovering additional truths about deterrence is not ensured, simply because it must deal with explanations about events that did not occur. Although five conclusions are offered, the field is characterized by conjecture rather than knowledge.

C-1: The Requirements for Deterrence are Indeterminate.

The objectives of a deterrent threat are not difficult to determine. That is, policy-makers should know what it is they would like to prevent from happening. Exactly what is required of them and of the resources at their disposal in order to ensure that the undesirable does not take place is not possible to determine with precision or confidence today. It is likely that a definitive determination will never be possible. This is because deterrence must deal with human motives and incentives, beliefs and biases, vagaries and vicissitudes. Just about the time someone concocts a theory about how deterrence works, along comes a situation with an actor or actors who perform in ways directly contrary to the theory. Indeed, this human unpredictability is what makes strategic interaction interesting and challenging.

So, the questions "What is to be done?" and "How much is enough?" will continue to bedevil deterrence. At this point in time, all one can do is observe, report, and learn a little. One can say that apparently in situation A deterrence worked because the outcome to be prevented did not occur, and one can say that in situation Z a deterrent threat resulted in disaster. Various shades and interpretations lie between A and Z. But none of them provide much in the way of systematic clues as to why deterrence seemed to work in A but failed catastrophically in Z.

Proliferant countries are not acquiring weapons against the wishes of others because they expect to be deterred from using them or threatening to use them to their advantage -- especially

if the threats they plan to employ are "strictly defensive" in nature. Potential aggressors recognize as well that the requirements on the deterrer are indeterminate, and by their acts they seek to communicate a message to prospective deterrers that deterrence might not be credible. The problem is genuinely circular and paradoxical.

This does not mean that deterrence should be abandoned. Sufficient evidence exists that permits some educated guesses about what might be done. They appear in Conclusion C-4. Still, this first conclusion must reemphasize that what is confidently known and what is believed about deterrence are easily eclipsed by those matters about which virtually nothing is certain.

C-2: Deterrence is Unreliable: It Fails.

This is the most important statement that can be made about deterrence. It represents perhaps the only irrefutable fact about the subject. Deterrence has failed when all the factors that argue for it were known to be solid: capability and will were unarguably powerful, the prospective deteree was not irrational, and the deterrent threat was clearly and reliably communicated.

History overflows with cases of deterrent threats gone awry -- even of undesirable outcomes precipitated, not prevented, by deterrent threats. Deterrence works when an adversary chooses not to act. An adversary might judge, however, that war is inevitable and even that it probably will lose, but that if it acts now it will lose less badly than if it waits. This describes the mindset of Japanese decision-makers in 1941. The adversary might have an entirely different frame of reference in which to judge the deterrent, however credibly it might be posed. By its own calculus - not irrational, even by Western standards -- the prospective deteree might consider that the expected results outweigh the costs. Terrorist human bombs operate on this kind of logic, and deterrence of the kind of acts they perpetrate is most problematical.

If the potential threat is severe enough, the preventive use of force becomes an option. For the United States, preventive attacks have not been looked upon with favor historically, even though they have been considered. The United States voted in the United Nations to condemn Israel for the attack on Osirak in 1981; one is left only to speculate on how the war in the Persian Gulf would have played out if Saddam Hussein had possessed even one nuclear weapon.

C-3. Observations and Studies about Deterrence Must be Approached with Skepticism.

Students of international relations have invested decades of effort on thousands of projects to study deterrence and the international use of military force. There is no shortage of material examining each historical use of force from almost every conceivable angle. Some of the studies reach sweeping conclusions that seem counterintuitive, many of the studies directly contradict one another. When it comes to deterrence, the very fact that it requires attempts to study what did not happen -- in a sense, an effort to prove the negative -- should raise eyebrows in discriminating readers.⁴³

Disarray reigns in studies of deterrence, and certainly gives good reason to be hesitant in suggesting either the historical or future requirements for deterrence, which in C-1 were found to be indeterminate.

C-4. There Might Be Ways to Make Deterrence More Effective.

Deterrence rather than conflict is the goal. Unfortunately, too much has been attributed to deterrence and too much demanded of it. Once acceptance is gained that our world contains "an infinite set of problems which have no logically consistent answer," and that "there are some problems which any framework alone cannot solve," and once it is understood that "warfare and strategy, like all undertakings which seek to describe and predict creative behavior, will contain insolvable paradoxes,"⁴⁴ then deterrence can be approached as "work in progress" rather than "solution in place."

In order to make some headway in this regard, while acknowledging that the waters remain uncharted, first of all, the richness of the deterrent fabric must be fully appreciated. This is not a single variable, linear problem. It is not enough to utter the threat: If you do A, I'll do B! Decision-makers must recognize that deterrence is a 24-hour a day business. Preparation must be ongoing, year in and year out, against those unpredictable historical moments of greatest need. Deterrence is not for dilettantes. Attention to its demands must not be sporadic; no lapses are permitted; consistency is vital. Opponents tend to be vigilant. They will notice a weakness, interpret it to serve their own purposes, rationalize their actions by it, and seek to exploit it.

Weakness within a country's national security team, for example, cannot have a beneficial effect on deterrence. President Jimmy Carter's Secretary of State, Cyrus Vance, projected the image that he fundamentally rejected the use of force in interstate relations. Adversaries who observe and believe these kinds of projections are encouraged to take advantage of them. Accordingly, President Carter was frequently judged by the international community as being weak in the face of challenges from abroad. Presidents Reagan and Bush enjoyed reputations that portrayed them as stronger-willed. Everyday actions by top decision makers -- presidents, cabinet members, ambassadors, military leaders, congressmen -- are observed abroad and factored into the deterrent calculus.⁴⁵ In brief, democracies have great difficulty presenting a consistent picture and that in itself undermines general deterrence.

Second, it is probably true that an "ounce of deterrent will is worth a pound of fighting muscle."⁴⁶ Note, however, that muscle can be acquired and sustained much more reliably than will. As Poland demonstrated in 1939, credible will can be undermined by inadequate muscle. In any event, risks must be run. Risk-free deterrent strategies exist only in fantasy. Like many policy difficulties, risks must be balanced with the importance of the subject and expectations of loss should deterrence fail.

Of great relevance to deterrence, because deterrence is in the mind of the deteree, the deterrer must try to understand the mind of the deteree. That is, deterrence is neither mere technique nor chance: it requires careful regional studies, in depth, of the intended deteree.

Deterrence battles are won not on the battlefield. The deteree's objectives, adversaries, allies, forces, and strategic culture must all be understood in order to narrow down how deterrence might be best accomplished. The purpose should be understood to attempt to answer the questions: What capabilities will deter most effectively, and what actions might be taken to enhance deterrence?

Mirror-imaging constitutes the zero-energy attempt to understand prospective adversaries. Mirror-imaging says: "Logically, they must think about these problems the same way as we do." Unable to proceed beyond that fundamental paralyzing assumption, mirror-imaging blazes the trail to disaster.⁴⁷

Along the way to understanding the adversary, it is important to factor in the bounds of one's own strategic culture insofar as they are recognized and appreciated. Thus, it may be necessary to deal with extreme dissonance about necessary actions. For example, U.S. strategic culture would not likely countenance deliberate attacks on certain targets -- such as schools, hospitals, or temples. If an adversary were to use such sanctuaries for the manufacture of WMD, the difficulty of mounting a credible deterrent threat can be understood. The preventive use of force to eliminate a capability that is believed to be undeterrable should be described in today's strategic environment as counter-cultural. This highlights an often overlooked complication.

Finally, hedges against the failure of deterrence should be considered; and, if such safeguards reinforce the deterrent effect, so much the better. Accordingly, it is vital to consider the impact of the failure of deterrence, and to implement ways to mitigate that impact. Preventive measures short of the use of force, active and passive defenses, and appeasement⁴⁸ can, in certain circumstances, provide appropriate hedges against the collapse of a deterrence regime.

C-5. Surprise Happens. Preparations to Deal With It are Necessary.

Surprise happens because its perpetrator believes that significant benefits will accrue from employing it. Because surprise is a force multiplier, the surpriser will accept the costs of preparing the surprise, and take deceptive measures to ensure that it is not detected by his adversary. That helps explain why "Most major wars since 1939 have begun with surprise attacks."⁴⁹

In the strategic environment of the 1990's, and foreseeably, the probability of political surprise seems high. It is higher now than it has ever been since World War II. No one knows how the newly free states of Eastern Europe will evolve; no one knows whether the Balkans will dissolve into a perpetual quagmire of warring factions; no one knows what will happen in the world's first political devolution and massive change in a nuclear-armed superpower. These critical changes on the world scene literally ensure political surprises.

Operational surprises appear no less likely than political surprises. The probability of surprise ground attack on the Eurasian continent has decreased markedly in the wake of the political transformations in Central Europe, the reunification of Germany and its extension as a part of NATO, the reduction of Soviet troops both in the satellite states and in overall numbers,

and the promise of the CFE treaty to reduce forces and require their significant geographic disengagement. Improvements in reconnaissance and surveillance, and in intelligence capabilities and methods have also contributed to increasing the warning time of a surprise conventional attack. Bucking this trend is the proliferation of WMD and long-range delivery systems in states about which the West has little understanding of objectives and hierarchy of values. The unwillingness or inability of many states of the world to work peacefully to accommodate the rights of minority groups has led to widespread, unanticipated violence abroad, and prospectively in the United States as well. These weigh on the opposite side of the scale, and promise undesirable operational surprises in the future.

Political, operational, and technological surprises happen. It is the effects of those surprises that must be negated, averted, or offset. Because surprise is planned, actions to deal with its effects must also be planned. In the ideal case, systems and forces will be designed to be insensitive to surprise. Such design, and subsequent actions to maintain that insensitivity through modernization, will discourage an adversary from thinking about surprise, and therefore perform (one hopes) a deterrent function.

Ultimately, perhaps the most difficult problem of all to deal with in the area of surprise is ambiguity. Decision-makers are generally not open to considering scenarios they find illogical, implausible, or painful. This means they tend as a group to be reluctant to step outside their own frame of reference in order to try to come to grips with what it requires to anticipate surprise. All situations will have elements of ambiguity, and there will be those on the scene who by their perceptions add to the ambiguity, those who for their own reasons interpret the ambiguity incorrectly, and those who read it in ways that reinforce the decision-maker's predilections. Again, amelioration of the problem lies in the ability of systems to weather surprise effect, which along with preparation of a defensive surprise or two should bolster deterrence.

The disappearance of the Soviet Union has been accompanied by a raft of resurgent security problems. Today there are more nuclear weapons states than in 1990, and the first state (North Korea) has threatened withdrawal from the Nuclear Nonproliferation Treaty. Proliferation of WMD and long-range delivery systems continues, and political instability is virtually rampant in parts of Europe, Asia, South America, and Africa. Deterrence of conflict must continue to be the objective of Western democracies, but an acknowledgement of how little is understood about how to accomplish it is long overdue. Given the chronic unreliability of deterrence, additional thought and effort should be devoted to supplemental ways to strengthen it or, if confidence is totally lacking, to considering other courses of action.

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NOTES

1. Here, and throughout, the term "deteree" is used as if it referred to a single (male) person. It does not. "The deteree" is shorthand for the decisionmaking entity targeted by the deterrent threat. It might be a dictator, a committee, a junta, a loosely-organized band of thieves, or an unorganized mass of potential terrorists. The deteree might well not be known to the deterrer, which injects additional complexity into the problem.
2. Paul C. Stern, Robert Axelrod, Robert Jervis, and Roy Radner, Perspectives on Deterrence (New York: Oxford University Press, 1989) p. 6.
3. Bernard Brodie, The Absolute Weapon: Atomic Power and World Order (New York: Harcourt, Brace & Company, 1946) p. 76.
4. New York Times, November 22, 1985, p. A12.
5. Department of Defense Annual Report, Fiscal Year 66-70, (Washington, D.C.: U.S. Government Printing Office, 1965) p. 39.
6. Alain C. Enthoven and K. Wayne Smith, How Much Is Enough? Shaping the Defense Program, 1961-1969 (New York: Harper & Row, Publishers, 1971) p. 195.
7. Edward Mead Earle, "Lenin Trotsky, Stalin: Soviet Concepts of War," in Edward Mead Earle, ed., Makers of Modern Strategy (Princeton: Princeton University Press, 1943), p. 327.
8. Herman Kahn, Thinking About the Unthinkable (New York: Avon Books, 1962).
9. The use of the term "rational" knows no bounds in the literature. Here is an extreme example of the use of the term in a way that contains only emotional, no analytical, content: "In the end, a faith in American rationality may be no more justified than a faith in Soviet rationality, since it is a faith in human rationality. Moreover, it is probably the most groundless faith in human rationality that may be imagined, since it follows upon the most irrational act in human history, which is the first use of a ballistic missile [with a nuclear warhead]. Moreover, the second use of a ballistic missile, which the doctrine of deterrence demands, may be the second most irrational act in human history....while it [retaliation] may have no rational reason, it may be counted upon to have an irrational reason, to wit, revenge." Leon Wieseltier, "When Deterrence Fails," Foreign Affairs, V63#4, Spring 1985, p. 845.
10. P. Huntington, "The Clash of Civilizations?" Foreign Affairs, V72#3, Summer 1993, pp. 40, 41.
11. An interesting example in counterpoint is the following: "Kennedy said at the time [of the Cuban Missile Crisis] that he believed there was one chance in three that the crisis would end in nuclear war, and that he had no doubt Khrushchev would have started a nuclear war if he felt boxed into a corner—even though the Soviet Union's vital interests were in no way involved and even though it would have had nothing to gain by committing national suicide." Joseph Forbes, letter to the editor, Commentary, August 1989, p. 11. President Kennedy seemed convinced that Secretary Khrushchev was irrational according to the definition given above.
12. For an extended treatment, see Keith B. Payne and Lawrence R. Fink, "Deterrence Without Defense: Gambling on Perfection," Strategic Review, Winter 1989, p. 25-40.
13. Quoted in Michael Hedges, "Defiant Serbs Warn West: Bring Coffins," The Washington Times, May 17, 1993, p. A1.

14. McGeorge Bundy is perhaps the leading theorist of this school of deterrence theory. His views can be traced back at least as far as his assertion that "One bomb on a city would be a catastrophe without precedent." "To Cap the Volcano," Foreign Affairs, v 48, #1, October 1969, p. 10.

15. Evidence extends back over thirty years that if a state does not believe the deterrent threat is relevant to what it is doing, or intends to do, deterrence will probably not work. For example, "The naval, air, and nuclear power of the United States is by itself no answer to the contingencies which the Chinese are likely to create in the near future. They will not create contingencies in which U.S. power is a relevant deterrent." Raj Krishna, "India and the Bomb," Military Review, December 1965, quoted in Robert M. Lawrence and William R. Van Cleave, "Assertive Disarmament," National Review, September 10, 1968, p. 898n2.

16. "Warsaw Pact Military Planning in Central Europe: Revelations From the East German Archives," Cold War International History Project Bulletin, (Washington, D.C.: Woodrow Wilson International Center for Scholars, Fall 1992) p. 13.

17. Ibid., p. 15.

18. "In a careful survey, John Mearsheimer identified twelve major instances of conventional deterrence between 1938 and 1979. In two of these cases, deterrence worked; in ten, deterrence failed. This 83.3 percent failure rate for deterrence by conventional defense after 1938 contrasts rather markedly with the zero failure rate for deterrence by nuclear retaliation for a quarter century after 1945." Samuel P. Huntington, "Conventional Deterrence and Conventional Retaliation in Europe," International Security, Winter 83-84 Vol 8, #3, p. 38.

19. Between 1816 and 1974, 17 of 76 conflicts were initiated by the weaker state (22%). In the 20th century 14 of 43 (30%) were so initiated. Bruce Bueno de Mesquita, The War Trap, (New Haven: Yale University Press, 1981) pp. 141-142.

20. Quoted in Uri Bialer, The Shadow of the Bomber: The Fear of Air Attack and British Politics (London: Royal Historical Society, 1980), p. 158.

21. J.M. Spaight, Air Power in the Next War (London: Geoffrey Bles, 1938), p. 126.

22. Excerpted from Payne and Fink, "Deterrence Without Defense," p. 28.

23. Stern, Perspectives, p. 103.

24. Richard Ned Lebow, Between Peace and War: The Nature of International Crisis (Baltimore: Johns Hopkins University Press, 1981) pp. 101-228.

25. Huntington, "Conventional Deterrence and Conventional Retaliation."

26. National Security Strategy of the United States, The White House, January 1993, p. 13.

27. General Eisenhower's assessment in 1947, for example, was that "If in ten years, all American troops stationed in Europe for national defense purposes have not been returned to the United States, then this whole project will have failed." Dwight D. Eisenhower, quoted in Stephen E. Ambrose, Eisenhower: Soldier, General of the Army, President-Elect 1890-1952 (New York: Simon and Schuster, 1983) p. 506.

28. "Let our position be absolutely clear: an attempt by an outside force to gain control of the Persian Gulf region will be regarded as an assault on the vital interests of the United States. It will be repelled by use of any means necessary, including military force." President Jimmy Carter, State of the Union Address, January 23, 1980.

29. Taiwan, because it claims to be part of China, is not counted by the U.S. Department of State as a separate nation. The eight others who are not U.N. members are: Andorra, Kiribati, Monaco, Nauru, Switzerland, Tonga, Tuvalu, and The Vatican.

30. Aircraft do not enjoy the rights of innocent passage. Ships can take advantage of innocent passage for the purpose of continuous and expeditious traversing of the territorial sea or for proceeding to or from internal waters. According to NWP-9, The Commander's Handbook on the Law of Naval Operations, "Innocent passage includes stopping and anchoring, but only insofar as incidental to ordinary navigation, or as rendered necessary by force majeure or by distress. Passage is innocent so long as it is not prejudicial to the peace, good order, or security of the coastal or island nation." (Washington, D.C.: Department of the Navy, 1989) p. 2-8. Among those military activities considered to be prejudicial to the coastal or island nation are: threats or the use of force, exercises or practice with weapons, intelligence collection, research or survey activities, acts aimed at interfering with communications or any other facilities or installations and acts of propaganda aimed at affecting its defense or security.

31. "In the world as a whole since 1945 more blood has been shed, more atrocities perpetrated, more destruction inflicted within nation-states than between them." James Cable, Navies in Violent Peace, (New York: St. Martin's Press, 1989), p. 17.

32. Michael Howard, "The Forgotten Dimensions of Strategy," Foreign Affairs, Summer 1979, p. 982.

33. "Anticipatory self-defense. Included within the inherent right of self-defense is the right of a nation (and its armed forces) to protect itself from imminent attack. International law recognizes that it would be contrary to the purposes of the United Nations Charter if a threatened nation were required to absorb an aggressor's initial and potentially crippling first strike before taking those military measures necessary to thwart an imminent attack. Anticipatory self-defense involves the use of armed force where there is a clear necessity that is instant, overwhelming, and leaving no reasonable choice of peaceful means." NWP-9, pp. 4-12 to 4-13.

34. Marc Trachtenberg, History and Strategy (Princeton: Princeton University Press, 1991) p. 106.

35. A memorandum written by then-National Security Advisor McGeorge Bundy of a high level meeting in September 1964 on the subject says: "We are not in favor of unprovoked unilateral U.S. military action against Chinese nuclear installations at this time. We would prefer to have a Chinese test take place than to initiate such action now....We believe that there are many possibilities for joint action with the Soviet Government if that Government is interested. Such possibilities include a warning to the Chinese against tests, a possible undertaking to give up underground testing and to hold the Chinese accountable if they test in any way, and even a possible agreement to cooperate in preventive military action." quoted in John Lewis Gaddis, Strategies of Containment (New York: Oxford University Press, 1982) p. 210.

36. See Trachtenberg, History and Strategy, for an expansion of these thoughts, especially pp. 151-152.

37. This should not be misinterpreted to mean that leaders of foreign states cannot be the legal targets of military action so long as the military action was itself legitimate under the terms of international law. See: Lieutenant Commander Patricia Zengel, "Assassination and the Law of Armed Conflict," Military Law Review, Volume 134 (1991) 123-155.

38. Although the British did contribute to the Manhattan Project, "At the end of the war the United States emerged with atomic bombs; the British emerged only with technical knowledge gained from two years of collaboration....by 1946 Congress had begun to take a look at nuclear energy, and in a fit of nationalism passed the McMahon Act, which prohibited collaboration with any foreign powers on nuclear weapons." David N. Schwartz, NATO's Nuclear Dilemmas (Washington, D.C.: The Brookings Institution, 1983) p. 27. Emphasis in the original.

39. R. James Woolsey, Director of Central Intelligence, Hearing before the Senate Committee on Governmental Affairs on Proliferation Threats of the 1990's, February 24, 1993, Prepared Statement, p.2

40. "The Israelis have a policy, well-calculated in tactical terms, of having nuclear weapons but not saying that they have them...They are glad to be able to persuade their neighbors to take account of them as a nuclear power, and yet they continue a level of economic and political connection to the United States that by our won repeatedly announced policies would be very difficult if we called them a nuclear power. The resulting lack of straightforwardness (to put it very gently) in our own discussion of this situation confuses our countrymen. It also persuades those in other countries who know the situation that we are not serious about proliferation as long as it occurs only among friends." McGeorge Bundy, Deterrence in the 1990s: What Can The Past Tell Us? (Livermore, CA: Lawrence Livermore National Laboratory, April 19, 1991), p. 5.

41. This question is debated by John Mearshimer and Steven Miller in the Summer 1993 edition of Foreign Affairs.

42. British Prime Minister, Stanley Baldwin, before the House of Commons on November 10, 1932 made a speech in which he supported "disarmament as the only way to peace," and "spoke of what he called 'the terror of the air.' Enemy bombers, he said, could hammer London into the earth like a hot white saucer. No defense against them was possible. 'I confess that the more I have studied this question, the more depressed I have been at the perfectly futile attempts that have been made to deal with this problem...the man on the street' should 'realize that there is no power on earth that can protect him from being bombed.' Whatever happened, he said, "the bomber will always get through." quoted in William Manchester, The Last Lion: Winston Spencer Churchill--Alone 1932-1940 (Boston: Little, Brown and Company, 1988) pp. 95-96. Baldwin went on to claim that offense constituted the only defense, and that fact meant that one had to kill women and children more quickly than the enemy.

43. Consider the following examples:

A. "The merit of the deterrence theory should have been proved if powerful states, which wish to keep the peace should tend to succeed in this wish when they take care to have large and mobile armed forces...We find instead that among the historical periods we studied, more mobile and better quality armed forces were raised by these states which failed in their aim to keep the peace....our correlations...are high enough to discredit the notion that a...state which seeks peace lessens the likelihood of war by strengthening and improving its armed forces. The only comfort our findings offer to the advocates of deterrence theory is to be found in our results about purely defensive armament--border fortifications. States enjoying strongly fortified borders may well turn out to have a slightly better chance of enjoying peace than those without....Thus it seems unlikely that military preparations help...very much to keep the peace." Raoul Naroll, Vern L. Bullough, and Frada Naroll, Military Deterrence in History (Albany: State University of New York Press, 1974), p. 330.

Yet, to have performed this study properly, the investigators would have had to determine all those instances in which deterrence succeeded. They could count only those in which deterrence failed, and therefore were able to reach the conclusions they did on fatally biased data. Frequently, these kinds of conclusions are reached by those who conduct studies only to confirm their own beliefs, not for the purpose of learning what the universe of data can reveal.

B. "Diplomatic policies of the sort here studied [Announcements of Intentions, Surprise Attack Alliances, Active Diplomacy, Intense Diplomacy, Previous History of Conflict] have had little if any effect on War Frequency among the conflicts we studied. Announcements of Intention--warnings by aggressor states--were, if anything, associated with longer or more frequent rather than shorter or less frequent wars....Other diplomatic factors proved even less relevant to the Frequency of Warfare. We found no relationship

worth mentioning between frequency of warfare and a previous history of conflict among the rivals; the use of surprise attack to begin a war; or, most important of all, the organization of a web of defensive alliances. This last point is one which statesmen and the public would do note carefully indeed. Collective security as a diplomatic policy did not seem to succeed in making war less likely among the conflict situations we studied."

Ibid., pp. 332-333.

Like the previous example, these observations and conclusions are based on an incomplete set of data, and one that cannot be completed. One of the major criticisms of this type of study is that there is no effort to discriminate among conflicts to determine the most important ones. In a large body of data, major regional conflicts frequently count as one data point, equal for study purposes to a border skirmish in the Third World. Moreover, one is struck by counter examples that seem to falsify the findings. The Japanese, for example, were involved in three major wars in the last century--the Sino-Japanese War, the Russo-Japanese War, and World War II. In each of these wars Japanese participation began by their mounting a surprise attack. The suggestions in this second quotation are even more flagrantly pointed at influencing policy.

Thus:

C. "Such tentative generalizations from history, even those supported by the most extensive studies available, remain of uncertain value. Some writers on deterrence note that for every deterrence failure examined in historical studies there may have been several crises prevented by deterrent threats. This plausible proposition is very difficult to test, however, because it is hard to determine that the absence of a crisis resulted from a deterrent threat." Stern, Perspectives, pp. 295-296.

44. Steven R. Mann, "Chaos Theory and Strategic Thought," Vol XXII #3, Parameters, Autumn, 1992, p.67.

45. Even platforms of political parties matter: for example, the Democratic Party Platform for 1940 contained the following plank:

We will not participate in foreign wars, and we will not send our army, naval, or air forces to fight in foreign lands outside of the Americas except in case of attack.

46. Colin S. Gray, "Deterrence Resurrected: Revisiting Some Fundamentals," Parameters, V. XXI #2, Spring 1991, pp. 13-21.

47. For example, it cannot account for irrationality on the part of the adversary, nor would it countenance preparing for it. On the other hand, one observer claims: "The Third World has at least its share of psychopathologic leaders; in fact, the argument can be made that the often bloody trail of leadership selection in many Third World countries encourages the recruitment of paranoid personalities because those who lead 'fighting organizations' may find paranoid qualities functional in their leadership roles." Barry Wolf, When the Weak Attack the Strong: Failures of Deterrence, A RAND Note, N-3261-A (Santa Monica: RAND, 1991) p. 16.

48. Patrick Morgan asked the essential question: "Is not the Munich analogy so compelling because, deep down, one can never escape feeling that in the nuclear age the same thing could happen again?" "Saving Face for the Sake of Deterrence," in Robert Jervis, Richard Ned Lebow, and Janice Gross Stein, Psychology and Deterrence (Baltimore: The Johns Hopkins University Press, 1985) p. 151.

49. Richard K. Betts, "Surprise Despite Warning: Why Sudden Attacks Succeed," Political Science Quarterly, Winter 1980-81, p. 551.

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